

July 25, 2000

Mr. Oliver D. Kingsley  
President, Nuclear Generation Group  
Commonwealth Edison Company  
ATTN: Regulatory Services  
Executive Towers West III  
1400 Opus Place, Suite 500  
Downers Grove, IL 60515

SUBJECT: LASALLE- NRC INSPECTION REPORT 50-373/2000010(DRS);  
50-374/2000010(DRS)

Dear Mr. Kingsley:

On June 27-28, 2000, the NRC conducted a supplemental inspection at your LaSalle Nuclear Station. The results of the inspection were discussed with Mr. M. Pardee and other members of your staff on June 30, 2000. The enclosed report presents the final results of that inspection.

This supplemental inspection was an examination and evaluation of your root cause investigation and corrective actions relating to a white performance indicator in the Safeguards Strategic Performance Area. Specifically, we assessed your evaluation and the risk significance associated with the Protected Area Security Equipment Performance Index that fell within the "Increased Regulatory Response Band" (White).

Based on our inspection results, we concluded that you performed a comprehensive analysis of the performance issues and risk significance associated with the unavailability of protected area security equipment. Your corrective actions implemented in the first quarter 2000 appeared to have addressed the extent of the problem, and have resulted in improved performance of protected area security equipment.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.html> (the Public Electronic Reading Room).

Sincerely,

**/RA/**

John A. Grobe, Director  
Division of Reactor Safety

Docket Nos. 50-373; 50-374  
License Nos. NPF-11; NPF-18

Enclosure: Inspection Report 50-373/2000010(DRS);  
50-374/2000010(DRS)

cc w/encl: D. Helwig, Senior Vice President, Nuclear Services  
C. Crane, Senior Vice President, Nuclear Operations  
H. Stanley, Vice President, Nuclear Operations  
R. Krich, Vice President, Regulatory Services  
DCD - Licensing  
C. Pardee, Site Vice President  
J. Meister, Station Manager  
F. Spangenberg, Regulatory Assurance Supervisor  
M. Aguilar, Assistant Attorney General  
State Liaison Officer  
Chairman, Illinois Commerce Commission

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos. 50-373; 50-374  
License Nos. NPF-11; NPF-18

Report No: 50-373/2000010(DRS); 50-374/2000010(DRS)

Licensee: Commonwealth Edison Company (ComEd)

Facility: LaSalle Nuclear Station, Units 1 and 2

Location: 2601 No. 21<sup>st</sup> Road  
Marseilles, IL 61341

Dates: June 27–28, 2000

Inspector: Gary L. Pirtle, Physical Security Inspector

Approved by: James R. Creed, Safeguards Program Manager  
Division of Reactor Safety

# NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas) reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

Reactor Safety	Radiation Safety	Safeguards
<ul style="list-style-type: none"><li>● Initiating Events</li><li>● Mitigating Systems</li><li>● Barrier Integrity</li><li>● Emergency Preparedness</li></ul>	<ul style="list-style-type: none"><li>● Occupational</li><li>● Public</li></ul>	<ul style="list-style-type: none"><li>● Physical Protection</li></ul>

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. And RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: <http://www.nrc.gov/NRR/OVERSIGHT/index.html>.  
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## SUMMARY OF FINDINGS

LaSalle Nuclear Power Station, Units 1 & 2  
NRC Inspection Report 50-373/2000010(DRS); 50-374/2000010(DRS)

IR 05000373-00-10; IR 05000374-00-10; on 06/27–28/2000; Commonwealth Edison Company, LaSalle Station, Units 1 and 2; a security specialist report. The inspection was conducted by a regional security specialist.

Cornerstone: Physical Protection

- The licensee conducted a comprehensive evaluation for the causes of the unavailability of protected area security equipment. The evaluation appropriately identified that the root cause for the protected area security equipment issue was the results of inadequate practices and procedures involving the scheduling and work activities of maintenance for protected area security equipment. Licensee corrective actions were verified to have been implemented, and those actions appeared to have been effective at improving security equipment performance during the first quarter of 2000.

## Report Details

### 01. Inspection Scope (IP 95001)

For the first quarter of year 2000, the licensee reported a Protected Area Security Equipment Performance Indicator (PI) index value of 0.289. The green threshold values for this PI are 0.000 to 0.080. The inspector reviewed the licensee's assessment and corrective actions to improve the performance of the security equipment associated with a white (Regulatory Response Band) performance indicator for Protected Area Security Equipment Performance. The inspector also assessed the specific risk consequences and evaluated compliance concerns associated with this issue.

### 02. Evaluation of Inspection Requirements

#### 02.01 Problem Identification

- a. Determine that the evaluation identified who and under what conditions the issue was identified.

Licensee's submitted first quarter 2000 data for the Protected Area Security Equipment performance indicator (PI) showed that the equipment (intrusion detection and closed circuit television) performance was in the white "Regulatory Response Band." The licensee prepared a Problem Identification Form (PIF) for the issue on January 25, 2000.

- b. Determine from the evaluation documents how long the issue existed, and prior opportunities for identification.

In May 1999, the licensee first gathered historical data to be submitted for the initial Protected Area Security Equipment Performance Index. During the data gathering process, it was identified that the protected area security equipment performance was within the "White" response band. Upon discovery of the deficiency, the licensee initiated a review to determine why security equipment performance was deficient and to develop and implement corrective actions to improve equipment performance.

Prior to May 1999, the licensee did not collect data pertaining to compensatory man-hours expended for failed security equipment that considered current performance indicator criteria. Properly compensating for failed equipment was considered an acceptable work practice and did not violate the Code of Federal Regulations or the licensee's security plan. The licensee concluded that this practice fostered a philosophy that as long as there was no violation and minimal costs resulting from the compensatory measures, security equipment would not require immediate evaluation, repair, or replacement. This philosophy perpetuated poor maintenance efforts and created an atmosphere in which problems with security equipment were prevalent.

The licensee determined that performance standards did not exist at the time the historical data was being generated, which significantly reduced their opportunities for prior identification.



- c. Determine that the evaluations document the plant's specific risk consequences (as applicable) and compliance concerns associated with the issue.

The licensee conducted a qualitative assessment of the specific risk consequence of the issue regarding the unavailability of protected area security equipment. Their evaluation compared the risk associated with the operable systems and the risk associated with the compensatory measures. They concluded that the white index window for the Protected Area Security Equipment PI had a low risk consequence to the plant because compensatory measures were implemented as required. Based upon interviews and document review, the inspector agreed with the licensee's conclusion regarding the low risk and determined that compensatory measures were implemented in accordance with security plan requirements.

#### 02.02 Root Cause and Extent of Condition Evaluation

- a. Determine that the problem was evaluated using a systematic method(s) to identify root cause(s) and contributing cause(s).

The licensee used the Event and Causal Factor Charting Method to evaluate the problems relating to the protected area security equipment and availability. The inspector verified that the licensee's analysis followed their procedure guidance (Root Cause Investigation and Report Hand Book, (CAP-3, Revision 2)) for performing the root cause analysis. The procedure required that an effective analysis identify root cause(s) and contributing factor(s), develop corrective action(s), and that the results be documented in writing. The licensee's analysis included interviews of cognizant personnel, a review of appropriate records, and an evaluation of equipment performance and risk.

- b. Determine that the root cause evaluation was conducted at a level of detail commensurate with the significance of the problem.

The inspector verified that the evaluation was thorough and identified both primary and contributing factors. The licensee concluded that the root cause for the excessive compensatory hours for the protected area security equipment, which had resulted in a white PI index window, was caused by weak practices and procedures regarding scheduling and completion of maintenance for security equipment. Several contributing factors were also identified, which included: (1) no established performance standard or consequences for inadequate equipment performance, (2) work practices that did not allocate sufficient resources to repair more than one failed equipment component at a time, (3) procedures that did not place a high enough priority on the timely repair of security equipment, (4) security and station management applied low sensitivity to security equipment failures, (5) aging equipment that was not addressed through the use of a preventative maintenance program, and (6) unavailability of certain parts needlessly extended the duration of the equipment failure. The inspector concluded that the licensee's root cause analysis for the security equipment performance issues was conducted at a level commensurate with the significance of the problem.

Personnel assigned to the root cause evaluation were appropriately trained and had subject expertise for the issue being evaluated. The scope and depth of the root cause analysis, and documentation of the results, were in accordance with the licensee's guidance for such analysis.

- c. Determine that the root cause evaluation included a consideration of prior occurrences of the problems and knowledge of prior experience.

The licensee's root cause analysis examined their problem identification system (PIFs), security event reports, other required security logs, and their long-standing tracking and trending system for monitoring security equipment performance. The inspector verified that the licensee's review of prior occurrences was broad in scope and revealed no previous events or problems of the type referred to in this report. It should be noted that prior to the new reactor inspection and oversight program, no performance standards were established for protected area security equipment performance.

- d. Determine that the root cause evaluation included consideration of potential common cause(s) and extent of condition of the problems.

The inspector determined that the licensee's root cause analysis did document potential common causes and extent of condition for security equipment at all of their nuclear plants. The licensee's review included other security equipment applicability to their root cause analysis. The root cause team confirmed that other security equipment and systems performed at a satisfactory level as a result of effective work practices already in place and did not require an increased level of maintenance attention. The root cause team also expanded the extent of condition evaluation to discuss potential effects at the licensee's other nuclear stations. Although each station operated with independent scheduling and maintenance functions, the equipment in use at each station was similar in design and application.

## 02.03 Corrective Actions

- a. Determine that appropriate corrective action(s) are specified for each root/contributing cause or that there is an evaluation that no actions were necessary.

The inspector determined that the licensee's corrective actions appeared to have adequately identified and addressed the root cause and each contributing factor for the security equipment performance issue. Corrective actions for the excessive compensatory hours for the protected area security equipment included: (1) the establishment of regular and frequent management oversight of protected area security equipment performance during the station's plan-of-the-day meetings, (2) implementation of a procedure change to put a higher priority on repair of protected area security equipment (changed from 14 days to within 24 hours to start work) and a call-in program for maintenance department personnel, (3) implementation of a preventative maintenance program for protected area security equipment, (4) maintain an adequate inventory of spare parts, (5) train and qualify additional maintenance personnel for performing work on applicable protected area security equipment and systems, (6) implement a security department procedure to identify measures to take to

minimize out-of-service time for security equipment, and (7) perform an effective review to evaluate the results of the corrective actions.

- b. Determine that corrective actions have been prioritized with consideration of the risk significance and regulatory compliance.

The inspector concluded that the licensee's corrective actions were properly prioritized to address the risk significance of the issues, in that actions taken addressed the timely and effective repair of equipment to improve performance and reduce the need for compensatory measures. The licensee's root cause analysis and corrective action plan also addressed a review of NRC regulatory requirements. No regulatory issues were identified either by the licensee or the inspector.

- c. Determine that a schedule has been established for implementing and completing the corrective actions.

The inspector verified that the licensee's corrective action program identified assigned individuals and completion dates to ensure that the actions taken to improve protected area security equipment performance were conducted in a timely and effective manner. Some limited additional actions that addressed equipment evaluation remained outstanding, but were on schedule for completion. With the exception of a final, broad evaluation/overview of the continuing effectiveness of the corrective actions, all significant corrective action have been completed by the licensee. NRC's review showed that all corrective action implementation dates were met and those outstanding were on schedule to be completed as documented in the licensee's root cause analysis.

- d. Determine that quantitative or qualitative measures of success have been developed for determining the effectiveness of the corrective actions to prevent recurrence.

The inspector verified that the licensee's corrective action program also included an action plan to further validate the effectiveness of the implemented corrective actions. This review is scheduled to be completed by February 15, 2001.

#### OA6 Management Meetings

##### Exit Meeting Summary

The inspector presented the inspection results to Mr. M. Pardee and other members of licensee management at the conclusion of the onsite inspection on June 30, 2000. The licensee representatives acknowledged the findings presented and did not identify any information discussed as proprietary or Safeguards Information.

## PARTIAL LIST OF PERSONS CONTACTED

### Licensee

C. Pardee, Site Vice President  
J. Barichello, Assistant Station Security Administrator  
K. Bartes, Nuclear Oversight Manager  
B. Bartlett, Assistant Station Security Administrator  
V. Gengler, Station Security Administrator  
R. Harvey, Training Instructor, The Wackenhut Corporation (TWC)  
R. Kavinsky, Security Operations Coordinator, TWC  
S. Kirven, District Manager, TWC  
K. Kuciuba, Support Services Superintendent  
R. Lane, Corporate Security Manager  
J. Pollock, System Engineer  
B. Saunders, Nuclear Generating Group Security  
M. Schiavoni, Acting Plant Manager  
S. Shields, Regulatory Assurance  
F. Spangenberg, Regulatory Assurance Manager  
W. Washkowiak, Training Coordinator, TWC  
C. Wilson, Security Force Manager, TWC

### NRC

E. Duncan, Senior Resident Inspector, NRC Region III  
P. Krohn, Resident Inspector, NRC Region III

## LIST OF DOCUMENTS REVIEWED

Root Cause Investigation and Report Handbook, Revision 2, dated January 18, 2000

Root Cause Analysis Report-Byron, Dresden and LaSalle Nuclear Power Stations titled "Excessive Compensatory Hours Resulting in White (Byron) and Yellow (Dresden, LaSalle) Index Window for the Protected Area Security Equipment Performance Indicator, Due to Practices Regarding the Scheduling and Completion of Maintenance for Security Equipment"

ComEd Procedure WC-AA-104, Review and Screening For High Production Risk and Work Authorization", Revision 1

ComEd Procedure WC-AA-101, "Work Screening and Classification," Revision 1

Problem Identification Form No. L2000-00345,"Security Perimeter Reliability is Outside of "NEI Green Band" Performance", Discovered January 25, 2000

ComEd Procedure RS-AA-117, "Performance Indicator - Protected Area Security Equipment Performance Index," Revision 2

Assignment Plan Summary for Corrective Actions for PIF 12000-00345, dated June 22, 2000

Summary Listing of Security Event Reports from January 1 to March 31, 2000

Security Event Reports from January 1 to March 31, 2000